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Tariff Escalation in World Agricultural Trade

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Executive Summary

Tariff escalation, a common practice in international commodity trade, refers to a situation where tariffs are zero or low on primary products and increase, or escalate, as products undergo processing. It causes the price of value-added imports relative to raw products to increase, decreasing the demand for processed products in the importing country. Through tariff escalation, one country can effectively protect its domestic processing industries while limiting the scope of trade-related industrialization in foreign countries.

Tariff escalation significantly impedes market access for developing countries, particularly in agricultural trade. Higher tariffs for more-processed agricultural products have the potential to depress value-added activities and obstruct export diversification in agricultural exporting countries. In addition, tariff escalation is perceived as a source of environmental damage to exporting countries because excessive reliance on primary product exports can lead to depletion of natural resources and disturb the ecological balance.

Although the importance that developing countries attach to reducing tariff escalation is widely recognized, little progress has been made in this area. The structure of escalated tariffs in world trade is caused and maintained by the rent-seeking behavior of economic agents and the resulting political economy of trade policies in developed countries. Food-processing industries in developed countries are proponents and beneficiaries of escalated tariffs. As agricultural commodity chains, particularly those of high-value crops and processed products, become increasingly dominated by a few giant multinational enterprises, industry's incentives and ability to maintain tariff escalation grow stronger. Developing countries and consumers in developed countries are the losers from tariff escalation, but they lack the political power to change the existing regime.

Reducing tariff escalation is an important issue in the ongoing World Trade Organization (WTO) negotiations on agriculture. Recognizing that tariff escalation is widespread in the post–Uruguay Round period, many negotiating proposals have called for eliminating or reducing tariff escalation as an explicit goal within the market access pillar of the Doha Round negotiations. Studies have also shown that these proposals offer options conducive to further reduction in tariff escalation. A few technical problems may arise, however, and special consideration must be given to the least-developed countries (LDCs) to prevent erosion of their preferential margins.

The formation of a coalition of interests between the South and the North could make an agreement to further reduce tariff escalation more politically feasible. Furthermore, strategies aimed at reducing tariff escalation should be accompanied by other domestic and trade policies designed to enhance the internal capacity of developing countries. Sometimes these policies will involve financial and technical assistance from developed countries.

Your assignment is to recommend to the WTO a change in trade policy measures that would allow tariff escalation to be reduced and eventually eliminated.

Background

Tariff escalation refers to the situation where tariffs are zero or low on primary products and increase, or escalate, as products undergo processing.[1] A common practice in international commodity trade, tariff escalation causes the price of value-added imports relative to raw products to increase, decreasing the demand for processed products in the importing country. Through tariff escalation, one country can effectively protect its domestic processing industries while limiting the scope of trade-related industrialization in foreign countries.

[1] The opposite may occur when tariffs are higher on raw materials than on processed products, a situation known as tariff de-escalation.

Tariff escalation significantly impedes market access for developing countries, particularly in agricultural trade. Fully processed, manufactured agricultural products are usually subject to much higher tariffs than unprocessed products in developed countries. For example, average tariffs on processed food are as much as 13 times higher than those on unprocessed products in Canada. In the European Union (EU), 30 percent of all peak tariffs protect the agricultural processing industry. These tariffs range from 12 to 100 percent, affecting sugar-based products, cereals, and canned fruits. The situation is similar in the United States, where the agricultural processing industry accounts for one-sixth of all peak tariffs. Forty percent of all Japanese peak tariffs protect the food industry and affect a wide range of products from cocoa powder and chocolate to canned meat and fruit juices.

The existence of tariff escalation prohibits processed agricultural products from entering developed-country markets, hindering expansion of agricultural processing industries and export-led development in developing countries.[2] In addition, tariff escalation is perceived as a source of damage to the environment and an obstacle to sustainability in developing countries (OECD 1996; Hecht 1997). Because of tariff escalation, developing countries are often trapped as raw material providers, with often harmful consequences for the environment. For example, excessive reliance on primary product exports is likely to cause depletion of natural resources and disturb the ecological balance of the country. In addition, the slower rate of income growth that results from deteriorating terms of trade for raw materials and overexploitation of resources leaves fewer resources available for efficient environmental management in exporting countries.

Although the importance that developing countries attach to reducing tariff escalation is widely recognized, little progress has been made in this area. The WTO Uruguay Round (UR) made some contributions toward resolving this issue, but the practice of tariff escalation persists and has become one of the most debated issues in the current multilateral trade negotiations. For instance, in the beginning of the Doha Round, 13 out of the 45 country negotiating proposals called for substantial reduction in tariff escalation, particularly in the developed-country markets. These proposals considered tariff escalation a key market access problem faced by commodity exporters and argued that it should be eliminated to help place agricultural products on the same footing as other products in the international trading system. The need to further reduce tariff escalation was again emphasized in the modalities of the July Package of 2004 (WT/L/579), the Hong Kong Declaration of December 2005 (WT/MIN(05)/DEC), and more recently Falconer's proposal (TN/AG/W/4).

Measuring Tariff Escalation

Tariff escalation can be measured either as "nominal tariff escalation" or as "effective rate of protection." Nominal tariff escalation (NTE) is measured as the tariff wedge (TW), which is the difference between the tariff imposed on the processed output commodity and the tariff imposed on the input commodity (all in ad valorem terms).[3] The effective rate of protection (ERP) measures the effects of tariff structure on the value added of the processed commodity. It is defined as the percentage increase in value added between trade with tariffs and free trade. Numerically, ERP is equal to the difference between value added expressed in domestic prices (that is, prices including tariffs) and that expressed in world market prices (that is, free trade prices), divided by the value added at world market prices.

Both the ERP and the TW may be positive, denoting the presence of tariff escalation; negative, denoting the presence of tariff de-escalation; or zero, denoting the neutrality of the tariff structure. Although the ERP is a reliable indicator of the extent of protection provided to downstream industries through tariff escalation, it is difficult to calculate because it requires not only data on tariffs, but also detailed and accurate data on prices, inputs, and technical coefficients—that is, data from input-output matrices that generally

[2] It should be noted that tariff escalation also exists in developing countries. To the extent that agricultural trade between developing countries is expanding, reduction of tariff escalation within developing countries has become an increasingly important issue.

[3] An ad valorem tariff is a fixed-percentage duty assessed on the value of imports.

are not available. To overcome the difficulties related to estimating the ERP, the TW approach can be used, but not without important limitations. First, nominal tariffs wedges do not fully represent the protection level created by the tariff structure. Second, since tariff wedges do not take into account the value added, they cannot be compared across commodities. Third, the concept of tariff wedges can hardly be applied to processing relationships with multiple inputs or multiple outputs. Therefore, whatever the method used in this exercise, the results should be interpreted with caution.

Tariff Escalation and World Agricultural Trade

Studies have shown that growth in global agricultural trade in recent decades has shifted more to processed products relative to raw materials (FAO 2004). Exports of processed agricultural commodities generate more income and employment opportunities through increased volume of trade, better prices, and more value-added activities related to the products and thus contribute significantly to economic growth in exporting countries. Tariff escalation and other trade barriers, however, often keep developing countries from benefiting from this trend and force them to continue to be providers of raw products. To give some indication of the extent of tariff escalation and how it has affected agricultural trade, Table 1 shows various processing stages for a number of commodity groups in different countries and regions and gives the corresponding tariffs and trade values.[4]

A number of important features emerge from Table 1. First, tariffs are often higher on fully processed products than on semiprocessed or primary products in the selected countries, especially the Quad countries (Canada, the EU, Japan, and the United States). Tariff escalation is most pronounced for cocoa and coffee, two crops of special export interest to many poor developing countries. Correspondingly, the export shares of developing countries for the two products decline with processing stages. For example, developing countries dominate the world market for cocoa beans and green coffee, but their exports of the finished products—chocolate and roasted coffee—account for only 8 and 9 percent of their respective export market values.

Second, tariffs in some processing chains do not increase and may even decline with additional processing. This pattern of tariff de-escalation may be tied to the level of support provided by farm programs, which, to be effective, might require high border protection on primary products, such as sugar and tobacco. Interestingly, however, tariff de-escalation in these commodities is not necessarily associated with increased market shares of more-processed commodities from developing countries. For example, the market shares of final products of sugar and tobacco from developing countries dropped even though tariffs for sugar confectionery and cigars are less than those for raw sugar and tobacco leaves. Thus other factors beyond tariffs significantly limit the ability of developing countries to expand exports of processed products. These factors include high transport costs and the ability of firms, especially the multinationals, to exercise monopoly power (Yeats 1984).

Reducing tariff escalation may benefit developing countries by permitting increased market access for some of their processed agricultural products. Several studies have shown this effect. For example, Elamin and Khaira (2004) use the Agricultural Trade Policy Simulation Model (ATPSM) of the United Nations Conference on Trade and Development (UNCTAD)–Food and Agriculture Organization of the United Nations (FAO) to simulate the effects of changes in tariff escalation, under the Harbinson proposal, on selected processed products. Their results are shown in Table 2. Elamin and Khaira's study included only a few processed products, namely roasted coffee, cocoa butter, cocoa powder, chocolate, and vegetable oils. Apart from oilseeds, existing tariffs on primary and processed forms of these products show a clear pattern of escalation. The simulation results based on this limited set of products show that reduced tariff wedges (including negative wedges) under Harbinson lead to slightly increased export values for all countries. Gains in

[4] For simplicity, Table 1 uses the WTO bound tariff rates. Alternatively, applied tariff rates can be used. Elamin and Khaira (2004) have shown that the degree of tariff escalation is lower in the case of applied than bound tariffs, particularly when tariff preferences are taken into account.

exports are relatively higher for developing countries and LDCs than for developed countries (Table 2). Because the Harbinson proposal offers only limited tariff reduction, it is expected that trade in processed products would increase even more if tariff escalation were further reduced.

Policy Issues

Primary or Value-added Production?

Over the past 20 years, world trade in processed agricultural products has increased significantly from an annual average of US$150 billion during 1981–1990 to more than US$300 billion during 1991–2000. Although some developing countries have benefited from this trend, developed countries have captured the bulk of the rapidly growing trade in this sector. Between 1981 and 2000, developed countries accounted for more than 70 percent of the world's processed agricultural product exports (Table 3). The share of developing countries fell from 27 percent in 1981–1990 to 25 percent in 1991–2000. For LDCs as a group, the share in processed agricultural exports fell from a negligible 0.7 percent to 0.3 percent over the same period. The significance of developing countries as primary producers has also decreased in the past decade.

The relatively low shares of developing countries in world processed agricultural exports have been attributed to several factors. Apart from exporting countries' domestic capacity constraints and other trade barriers, tariff escalation by importing countries is often considered the major market access barrier limiting developing countries' ability to expand exports of their processed products. If the current world tariff regime persists, dependence on exports of primary agricultural commodities will continue to be a prominent feature in many developing countries.

It can be argued that some developing countries have a comparative advantage in primary production and export and that capturing this comparative advantage can have a positive impact on their economies. Important questions arise, however, about whether primary agriculture will be a sustainable development strategy for them for the future. First, there is little value addition in producing and exporting primary products, whose terms of trade have been in constant decline in recent decades. Trade growth in primary products has also been sluggish, averaging only 3.3 percent a year.[5] And even this slow growth is distributed unevenly among countries. Therefore, if most of the economic activity of a country is centered on the primary sector, growth would be too slow for the country to achieve its development goals. Second, the sources of some raw materials are bound to be exhausted sooner or later, and if a country fails to develop a strong manufacturing base, natural resources will inevitably be depleted. Furthermore, dependence on raw material exports often puts a country at the mercy of unpredictable climatic and world market conditions. The situation is exacerbated by the fact that commodity prices are often depressed by developed countries as a result of their high agricultural subsidies.

Why Does Tariff Escalation Persist?

Although tariff escalation is a significant impediment to world trade, it is difficult to eliminate because of the rent-seeking behavior of economic agents and the resulting political economy of trade policies. From an economic standpoint, rent seeking is the process by which an individual, organization, or firm seeks to gain by manipulating the economic and political environment. Unlike profit seeking, rent seeking generally implies the extraction of uncompensated value from others without taking actions that improve productivity. For example, rent seeking may consist of imposing regulations or other government decisions that may affect other economic agents.

[5] Slow growth in primary commodity trade is due to the low income elasticity of demand for primary products and their decreasing intensity of use in economic activities. Studies have also shown that changes in the organizational structure of commodity markets are important. For example, the high costs associated with processing, packaging, advertising, marketing, and distribution mean that the cost of primary commodities as a share of the processed product price is usually small.

Table 1: Tariff Escalation and Annual Average Global Export Value, Selected Countries and Agricultural Products, 2000–2002

Primary, intermediate, and final products	Average bound tariffs (%)					Global exports (million US$)	All developing-country exports	
	Australia	Canada	European Union-15	Japan	United States		Value (million US$)	Market share (%)
Cocoa								
Cocoa beans	1	0	0	0	0	8,380	8,084	96
Cocoa paste	0	0	10	8	0	838	440	52
Cocoa butter	0	0	8	0	0	4,397	1,887	43
Cocoa powder	9	6	27	19	16	620	156	25
Chocolate and products	17	57	18	21	15	4,355	361	8
Coffee								
Coffee: not roasted	1	0	4	0	0	14,213	13,592	96
Coffee: roasted	0	0	8	12	0	1,843	164	9
Coffee mixtures and extracts	1	1	12	39	10	2,638	1,084	41
Grains								
Grains	1	11	42	133	2	9,356	2,360	25
Grain products	4	11	41	93	8	2,857	399	14
Vegetable oils								
Oilseeds	1	0	0	66	16	2,527	883	35
Vegetable oil	4	6	10	7	4	31,018	12,649	41
Beef, pork, and poultry								
Meat: fresh or frozen	0	54	40	41	7	12,240	1,817	15
Meat preparations	7	50	37	91	3	1,712	532	31
Sugar								
Sugar	12	5	61	198	24	13,840	9,292	67
Sugar confectionery	11	9	20	16	11	4,625	1,255	27
Tobacco								
Unmanufactured tobacco	10	10	38	9	60	7,461	3,963	53
Tobacco products	16	4	14	0	46	6,467	898	14

Notes: Calculations are based on WTO bound tariffs; products (primary, intermediate, and final) are listed for various processing stages (the steps taken to convert a raw material into a finished consumer product); vegetable oils exclude tropical oils (palm, palm kernel, and coconut).
Source: USDA 2006.

Table 2: Impact of the Harbinson Proposal on Tariff Wedges and Export Values

Product	Base tariff wedge (%)	Tariff wedge under Harbinson (%)	Percentage change in export value			
			World	Developed countries	Developing countries	LDCs
Coffee: green			1.0	0.9	1.0	1.1
Coffee: roasted	2.7	1.6	0.4	0.3	0.6	0.4
Cocoa beans			0.3	0.3	0.3	0.3
Cocoa powder	7.3	4.4	1.4	1.2	1.6	7.3
Cocoa butter	-4.7	-5.7	1.1	0.6	1.3	n.a.
Chocolate	24.7	11.0	6.5	6.3	6.8	6.7
Oilseeds			1.8	1.2	2.4	28.1
Vegetable oils	-21.3	-8.4	4.6	2.2	5.0	6.1

Source: Elamin and Khaira 2004.
Note: n.a. indicates not available.

Table 3: Share in World Agricultural Exports (%)

Period	Primary products			Processed products		
	Developed	Developing	LDCs	Developed	Developing	LDCs
1981–1990	66.2	33.8	3.1	73.0	27.0	0.7
1991–2000	67.4	32.6	2.2	75.0	25.0	0.3

Source: FAO 2004.

Rent seeking is pervasive in the setting of tariff regulations through which government protection benefits domestic firms. An escalating degree of tariff protection allows domestic processing industries (downstream activities) to compete, often unfairly, with foreign exporters. Like many other protective policies, tariff escalation reflects the underlying structure of political influence within a country. The same structure also governs the feasibility of any reforms that may seek to eliminate tariff escalation and hence make trade freer. Tariff escalation generates substantial benefits (economic rent) for industry groups, whose lobbying power is perceived as "influential" in the country. Because these groups are beneficiaries of the existing tariff structure, a reform that will cost them rent losses will be politically infeasible.

The elimination of tariff escalation may also be hampered by the "free-rider" problem in political lobbying. Political interests who are successful in lobbying for tariff escalation are typically the manufacturing and processing industries because the gains are concentrated in relatively few hands (so they can act collectively) and they are able to capture enough of the gains (economic rent) to compensate them for the effort they devote to the policy-making process. Those who lose from a tariff escalation are the consumers of processed products. Although these "losers" are much more numerous than the "winners," their costs are smaller on average and not sufficient to induce them to spend resources to lobby their government to avoid the tariff escalation. Instead, they would prefer someone else to do it for them so that they can "free-ride" on the efforts of similarly minded individuals. Consequently, the only lobbying pressure typically comes from the industry that gains from the tariff, and the government succumbs to this one-sided pressure.

To Retaliate or Not?

Suppose that developed countries impose escalated tariffs on their imports from developing countries. The governments of developing countries are sometimes forced to retaliate with the same escalated tariff structure on their own imports by

political pressure from their own vested interest groups, just like the ones that keep tariff escalation in place in developed countries. From an economic (game theoretic) standpoint, choosing tariff escalation may be the dominant strategy for both developing and developed countries. When all countries choose this dominant strategy, however, a least-efficient outcome occurs (a "lose-lose" situation), even though this outcome may represent an equilibrium (Nash equilibrium).

What if developing countries do not retaliate? The move from retaliation to non-retaliation by developing countries does not necessarily trigger a change in the strategy of developed countries, which might gain even more by maintaining tariff escalation. This is clearly a "lose-win" situation where developing countries lose and developed ones win. The historical evidence suggests that a number of developing countries, especially the small ones, are indeed pursuing this non-retaliatory option—they continue to be primary producers and exporters. Some larger developing economies that have greater economic power have chosen to retaliate by setting their own escalated tariffs. Even in this case, developing countries are likely to lose because they can hardly impose a credible threat (because of their limited import market size), and developed countries are keeping their tariff escalation intact.

Is There a Way Out?

The WTO may offer some hope for breaking this deadlock. Indeed, the UR of the WTO has made substantial progress in reshaping the world tariff structure in a direction toward fewer distortions in agricultural markets and better market access conditions for developing-country exporters. For example, the average tariff cuts are 36 percent for developed countries and 24 percent for developing countries at the end of their respective UR implementation periods. The impact of the UR on tariff escalation, however, has been much less significant. Studies have shown that tariff escalation is still widespread in the present world agricultural trading system.

One of the most comprehensive analyses of tariff escalation was conducted by Lindland (1997), covering 226 agricultural commodities in input and output pairs in three import markets—the EU, Japan, and the United States. The study found that although there was a reduction in the bound tariff wedges between processed and primary products following the UR, more than half of the commodity pairs examined still had escalating bound tariffs after the full implementation of the UR commitments. The highest post-UR bound tariff escalation was found in the dairy, sugar, fruit, tobacco, and hides and skins sectors (Lindland 1997). Other studies have found similar results. For example, Elamin and Khaira (2004) showed that tariff escalation persisted after full implementation of the UR agreement, and the degree of escalation was higher for bound tariffs than applied tariffs. UNCTAD (2003) evaluated tariff escalation for 12 agricultural commodity pairs by averaging nominal tariffs for different processing stages in the Quad markets. The study found that most of the post-UR tariffs escalated from raw to semi-finished products and from semi-finished to finished products. Earlier studies by USDA (USDA 2001), the Swedish Board of Agriculture (Burman et al. 2001), and the OECD (1996, 1997) also showed widespread tariff escalation in agricultural markets in both developed and developing countries.

How to Proceed?

Consistent with these studies that showed widespread tariff escalation in the post-UR period, many negotiating proposals have called for eliminating or reducing tariff escalation as an explicit goal within the market access pillar of the Doha Round negotiations. There is little consensus, however, about how future reductions should proceed. The official text on negotiations, the Hong Kong Declaration of December 2005, in its Annex A (para. 17) under "other elements" of market access, states as follows: "There has been no further material convergence on the matters covered by paragraphs 35 and 37 of the July 2004 Framework text. The same may be said for paragraph 36 on tariff escalation, albeit that there is full agreement on the need for this to be done, and a genuine recognition of the particular importance of this for commodities exporters." Thus no agreement has so far been reached on reducing and eliminating tariff escalation, and the official position of the WTO remains, as stated in its 2004 Framework, that a formula needs to be found.

Despite the lack of an agreement, several tariff-cutting formulas have been proposed with the aim of reducing tariffs, and in particular tariff escalation. Two approaches (and their variants) are favored most by WTO member countries—they

are the "Uruguay Round approach" and the "harmonizing reduction approach." The Uruguay Round approach provides a linear tariff cut—that is, tariffs are reduced by the same percentage no matter what the starting tariff rate is. Variations are allowed for specific products so long as a simple average across all products meets the target. The rate would be negotiated along with reduction rates for export subsidies and domestic support, as well as other issues. Supporters say this approach is simple and flexible. Critics say it could produce insignificant improvement in market access and would not deal with tariff peaks and escalation.

The harmonizing reduction approach would produce much steeper cuts on higher tariffs. It is a nonlinear tariff-cutting approach that would have a homogenizing effect on all tariff lines. Supporters of the harmonizing approach, those previously advocating the "cocktail" approach, say it is needed in order to reduce tariff peaks and escalation. Critics say this formula is too ambitious, requires too much adjustment, and is inequitable because countries with lower tariffs would not have to do much. Some also argue that the harmonizing approach would be too complicated because it would require converting specific tariffs into ad valorem tariffs. Within the harmonizing approach, two types of formulas have been proposed: the tiered formulas and the mathematical formulas (for example, the Swiss formula). The tiered formula, accepted by many as a general tariff reduction method, was proposed in the most recent modality by New Zealand Ambassador Crawford Falconer (TN/AG/W/4). There is much less agreement, however, about which formula to select in terms of reducing tariff escalation in particular.

What about LDCs?

LDCs gain access to the markets of developed countries, and particularly the EU, essentially through preferential agreements. These agreements define conditions of preferential access to the European market, but they are not subject to multilateral international negotiations, which instead concern the exchanges governed by the most-favored-nation (MFN) regime.[6] One of the LDCs' fears concerning WTO negotiations is that their advantage could be eroded by tariff cuts on an MFN basis.

Tariff escalation is not a real problem for LDCs; this group of countries enjoys similar levels of preferential access for both primary and processed products in developed-country markets.[7] A reduction of tariff escalation on an MFN basis, however, will significantly erode their preferential advantages. To illustrate, a tariff reduction strategy—for example, the Harbinson proposal, a rather moderate formula with regard to reduction of tariff escalation—can be applied to the EU market.[8] The tariff-cutting results and the implications for the preferential margins of the African, Caribbean, and Pacific (ACP) countries are summarized in Table 4.

Following the Harbinson tariff reduction formula, accession to the EU market is considerably improved for the Generalized System of Preferences beneficiaries (the average tariff is reduced from 17.9 percent to 9.0 percent), but at the same time the preferential margin for these countries is almost nullified (dropping from about 3 percent to 0.4 percent). Access to the EU market is hardly modified for the ACP countries, but they suffer from significant reduction of their preferential margin. This margin, which was 15.4 percent, would drop to 5 percent after implementation of Harbinson formula.

[6] The WTO's most-favored-nation principle means that each member treats all the other members equally as "most-favored" trading partners. If a member improves the benefits that it gives to one trading partner, it must give the same "best" treatment to all other WTO members so that they all remain "most-favored."

[7] For example, Chevassus-Lozza and Gallezot (2003) show that tariff escalation for various commodities is close to zero at all stages of the production process for ACP countries.

[8] The ACPs include 77 countries in the Africa, Caribbean, and Pacific region that benefit from preferential market access to the EU. In addition, the EU also uses a Generalized System of Preferences (GSP), giving special and preferential treatment to 178 developing countries and territories.

Table 4: Effect of the Harbinson Formula on MFN and Preferential Tariffs (%)

Time period	MFN	ACP	GSP	Other preferences
Before Harbinson	20.7	5.3	17.9	2.7
After Harbinson	9.4	4.4	9.0	2.2

Source: Chevassus-Lozza and Gallezot 2003.
Note: MFN = most favored nation; ACP = Africa, Caribbean, and Pacific; GSP = Generalized System of Preferences.

Based on this analysis, it is evident that any deep reduction of tariff peaks and tariff escalation on an MFN basis will affect preferential margins and result in substantial preference erosion for the LCDs. It will further allow other countries to gain part of the LCDs' share in the developed markets and therefore lead to stronger competition for LDCs. If LDCs must compete directly with other developing countries and even developed countries, they are poised to lose from the reduction of tariff escalation.

Stakeholders

Developed Countries

Tariff escalation can benefit developed countries for economic and political reason. First, tariffs (including tariff escalation) provide an important source of revenue for the government. Escalated tariffs in the form of tariff peaks generate high marginal revenue for a given import value. Second, tariff escalation can be used as a retaliatory tool against a tariff structure imposed by a trade partner or an act of "dumping" by a foreign firm. The latter are called anti-dumping duties.

Third, tariff escalation is part of a "strategic trade policy" in some developed countries. This policy entails government collusion with industry in promoting the sale of processed products by large firms in an international oligopoly (or some form of imperfectly competitive market where price and production follow strategic or game-type behavior). This is particularly true when agricultural commodity chains, particularly those of high-value crops and processed products, become more powerful and are increasingly dominated by a few multinational enterprises (MNEs). Within this context, the food-processing companies, especially MNEs, are the clear beneficiaries of an escalated tariff structure. For these companies, tariff escalation implies advantageously low rates of duty on their imported inputs in relation to the protection they receive against imported products that compete with those they produce.

It is important to note that consumers in developed countries are also stakeholders in, and apparently losers from, tariff escalation. Higher tariffs lead to increased prices for food products they purchase and decreased consumer surplus. The lost consumer surplus goes partly to producer surplus and government tariff revenues and partly to deadweight losses.

Developing Countries

Tariff escalation particularly affects the processed-food sector in developing countries. High tariffs on processed agricultural products prevent their export and create a disincentive for agricultural processing. The impact of tariff escalation on the food-processing industry can be amplified to the country level. Specifically, tariff escalation limits the scope of trade-induced industrialization that can occur in developing countries. It prevents developing countries from moving into higher stages of processing and diversifying their exports, hence reducing their relative share of final value added and their ability to maintain positive trade balances. Escalated tariffs shift the economic activity of exporting countries toward primary production and away from processing, locking them into volatile primary commodity markets that are characterized by low and deteriorating world prices—a further burden on their balance of payments. Tariff

escalation can also lead to excessive exploitation of natural resources and thus damage the environment in these countries. The removal of escalating tariffs would enable developing countries to develop a stronger manufacturing base and thus capture a larger share of the final value of export earnings, and in turn to generate more employment, investment opportunities, and sustainable growth.

Least-Developed Countries

A significant share of LDCs' agricultural exports are directed to the developed-country markets under preferential agreements. A comparison of tariff escalation under the different preferential schemes in the previous section reveals that tariff escalation is not a severe problem for the LDCs. Any reduction of tariff escalation on an MFN basis, however, will result in substantial preference erosion for the LDCs. It will further allow other countries to gain part of the LDCs' share in the developed-country markets, and therefore LDCs will face stronger competition.

Policy Options

Trade Negotiations

Multilateral trade negotiations through the WTO may be an option conducive to further reduction of tariff escalation, although their effectiveness has been questioned on various occasions since the UR. The fact is, however, that even though tariff escalation persisted after the UR, the problem has been less serious than it was before the UR. Lindland (1997) showed that the average post-UR nominal (bound) tariff wedge (for all commodities with positive tariff wedges) was 17 percent—6 percent less than the base year average of 23 percent. Table 5 shows the five commodities with highest post-UR tariff escalation rates and compares them with corresponding base year numbers. In all cases tariff escalation measured by tariff wedges decreased following the UR. To complement these results, studies on post-UR proposals have shown that further reduction in tariff escalation can be expected as a result of current trade negotiations. For example, Sharma (2006) finds that tariff escalation can be effectively reduced from 25 percent in the base period to 4, 6, and 7 percent (unweighted averages) following the proposals by the United States, Group of 20, and the EU, respectively, at the Doha Round.

Table 5: Bound Tariff Escalation for Selected Commodities

	Tariff wedges (%)	
Country or region/product	**Base tariffs**	**UR bound tariffs**
European Union		
Fruit products	102.5	84.8
Sugar products and sweeteners	39.8	37.2
Dairy and egg products	51.6	34.4
Root and tuber products	31.0	19.8
Tobacco and pyrethrum	37.3	14.1
Japan		
Sugar products and sweeteners	96.9	82.2
Root and tuber products	61.1	50.3
Hides and skins	60.0	30.0
Dairy and egg products	36.9	29.1
United States		
Cassava starch	40.1	38.0
Malt of barley	38.1	36.9
Dairy and egg products	39.7	33.6
Sugar products and sweeteners	36.1	31.2

Source: Lindland 1997.

Possible Reduction Methods

On the technical aspects of addressing tariff escalation in the trade negotiations, different tariff-cutting methods have been proposed. But until now, there has been no unanimous support for any one method. The first draft of modalities (TN/AG/W/1/Rev.1), the Harbinson text of March 2003, reconciles the two most popular methods—the Uruguay Round approach and the harmonizing approach. The text relevant to tariff escalation, in the paragraph following the tariff reduction formula (para. 8), reads as follows: "In applying this formula, where the tariff on a processed product is higher than the tariff for the product in its primary form, the rate of tariff reduction for the processed product shall be equivalent to that for the product in its primary form multiplied, at a minimum, by a factor of [1.3]." In other words, whenever the formula results in positive tariff escalation, a factor of [1.3] will be applied to reduce the gap. This rather concrete proposal for reducing tariff escalation was not, however, carried forward in the subsequent texts because it was found to be "fraught with technical problems," most notably the use of a single multiple factor (Sharma 2006, 16).

Sharma (2006) suggests an alternative idea that deviates from negotiating a single adjustment factor or a multiple as proposed in the 2003 Harbinson text. Sharma argues that agreements on escalated tariff-cutting formulas must be reached on two key building blocks. First, a list of processed products and their corresponding primary products should be identified for applying the formula, no matter what formula is used. A group of 20–25 processed products, about 100 tariff lines, and about 150–200 tariff lines for the corresponding primary products should be selected for the targeted list. In addition, an agreement would be needed on a threshold, or a *de minimis* level, within which to contain the tariff escalation for the products identified. The *de minimis* level could be, for example, a tariff wedge of 5 percentage points between primary and processed products for developed countries and 10 percentage points for developing countries. It would then be relatively straightforward to determine the required adjustment factors for tariff reduction rates, over and above the formula rates.

Special Considerations for LDCs

Any reduction method should explicitly consider the need to preserve the preferential treatment of the LDCs. For the LDCs, the real problem is neither tariff peaks nor tariff escalation, but the erosion of preferences following any tariff reduction. In general, the outcome from addressing tariff escalation (or tariff reduction in general) for the LDCs will be negative, and the anticipated negative effects will be greater if more drastic tariff reduction formulas are adopted, including the possibility of applying an additional formula to the general one to specifically address tariff escalation.

A number of compensatory measures can be envisioned that would preserve or even enhance LDCs' preferential treatment. First, developed countries can deepen their preference programs by granting the LDCs duty-free and quota-free market access to all agricultural products that are covered in existing programs. Second, developed countries can widen the coverage of preference programs by extending the duty-free and quota-free access to all agricultural products including those that have not been covered in existing programs (that is, developing a system similar to EU's Everything But Arms initiative). Third, preferential market access for LDC exports can be broadened to include advanced developing countries in the group of preference-granting countries. Lastly, preference-granting countries can strengthen existing preference programs and new preference initiatives by making them permanent and unconditional (for example, by applying simpler rules of origin and eliminating eligibility conditions other than being an LDC).

A North-South Coalition

Welfare could be enhanced if some countries (preferably developed countries) make some concessions during multilateral trade negotiations in terms of reducing tariff escalation and thereby induce others to follow. By reducing their tariff escalation, developed countries could both help promote processed imports into their markets and expand their own exports to other countries. A "win-win" situation will result if all countries eliminate tariff escalation. However appealing this situation may be, political lobbying by selected groups within developed countries may derail efforts to reduce tariff escalation. In this case, a coalition of political interests could provide a necessary and politically proactive way out.

Specifically, the strategy would rely on forming and strengthening a coalition of interests between developing-country producers (of processed goods,

which are labor intensive), and developed-country consumers. The thread connecting such a coalition is civil society, particularly the consumer and environmental organizations of developed as well as developing countries. With this coalition, it would be politically feasible for developed countries' governments to remove tariff escalation and thus create the basis for a win-win situation.

Domestic Capacity Building

Besides tariff escalation, internal supply constraints have also limited the ability of developing countries to take advantage of trading opportunities in processed agricultural products. These constraints include weak technology; insufficient transport, storage, and marketing infrastructure; inadequate legal and regulatory arrangements; and policy-induced disadvantages resulting from trade and macroeconomic policies that are biased against agriculture and exports. Therefore, strategies aimed at reducing tariff escalation should be accompanied by other domestic and trade policies designed to enhance the internal capacity of developing countries. Sometimes these policies will require international cooperation and financial and technical assistance from developed countries.

Assignment

Your assignment is to recommend to the WTO a change in trade policy measures that would allow tariff escalation to be reduced and eventually eliminated.

Additional Readings

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